CABLE FREE WEATHER STATION

MODEL: BAR938HG

USER'S MANUAL

INTRODUCTION

Thank you for selecting the BAR938HG Top Weather Station.

BAR938HG is an all-in-one clock and weather device. RF- controlled, it can automatically synchronize its current time and date when it is brought within an approximate 1500km radius of the radio signal generated from Frankfurt, Germany (DCF77).

BAR938HG does weather forecasts with kinetic-movement graphic illustrations and tells indoor and outdoor temperature. It also shows the trend of changes plus the recorded maximum and minimum temperatures.

Apart from temperature, BAR938HG shows the indoor and outdoor relative humidity and rates the comfort level. It also retains the maximum and minimum relative humidity readings. A remote thermo-hygro sensor is included with the unit. BAR938HG is able to receive and display readings from up to 3 remote sensors.

The built-in barometer enables BAR938HG to display the atmospheric pressure with user-selectable altitude adjustment. A bar graph will show the pressure trend of the last 24 hours.

What is more, BAR938HG is equipped with a moon phase scanner, which lets you check the moon phase of any day between 1990 and 2089.

Other features include a HiGlo backlight, daily crescendo alarm with eight-minute snooze function, and extra-large display.

No wire installation is required between the main and remote units. As BAR938HG operates at 433MHz, it can be used in the U.S. and most places in Continental Europe.

MAIN FEATURES: MAIN UNIT

A RADIO RECEPTION SIGNAL
Indicates the condition of radio reception

B SNOOZE/LIGHT BUTTON
Activates the snooze function when an alarm goes off or turns on the backlight for five seconds

C CLOCK WINDOW
Displays the current time and date

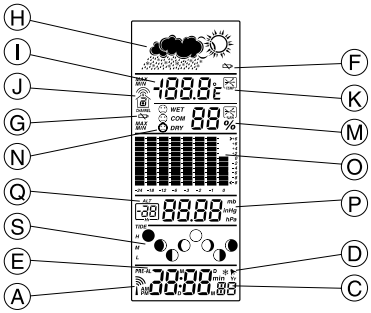
D ALARM ON ICON
Appears when the alarm is activated

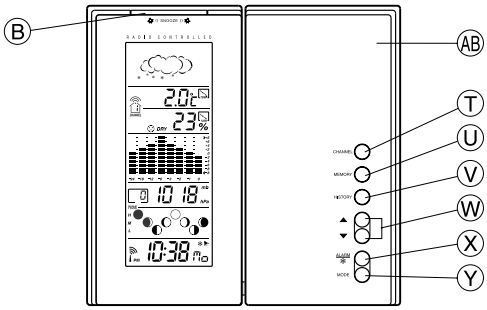
E ALARM ICON
Appears when the alarm time is displayed

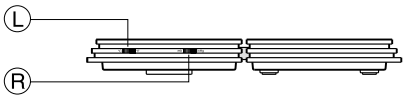
F MAIN UNIT BATTERY LOW INDICATOR
Lights up and blinks when the batteries of the main unit are running dry

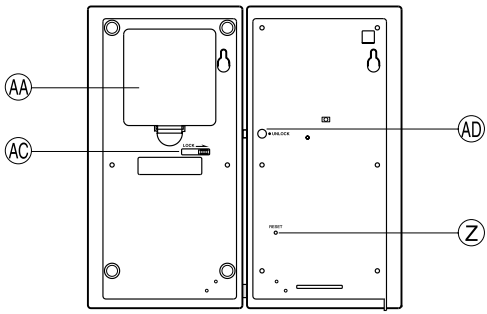
G REMOTE UNIT BATTERY LOW INDICATOR
Lights up when the batteries of the remote unit are running dry

H WEATHER FORECAST WINDOW
Displays the weather pattern









I TEMPERATURE WINDOW
Shows the current temperature or the maximum or minimum recorded temperature

J IN/OUT - REMOTE INDICATOR
Indicates if the current reading is displayed as indoor or outdoor-remote

K TEMPERATURE TREND ARROWS
Indicates the trend of temperature changes

L °C/°F SLIDE SWITCH
Selects between Centigrade (°C) and Fahrenheit (°F) display

M RELATIVE HUMIDITY WINDOW
Displays the relative humidity

N COMFORT INDICATOR
Indicates the comfort level

O ATMOSPHERIC PRESSURE CHART
Shows the atmospheric pressure trend chart of the last 24 hours

P ATMOSPHERIC PRESSURE WINDOW
Displays the current atmospheric pressure

Q PRESSURE HISTORY INDICATOR
Indicates the pressure history of previous hours

R PRESSURE UNIT SLIDE SWITCH
Selects between mb/hPa and inHg display

S MOON PHASE SCANNER
Displays the current moon phase or that of the date checked

T CHANNEL BUTTON
Selects among indoor & channel 1, 2, 3 or to enter auto scan mode

U MEMORY BUTTON
Displays the maximum or minimum temperature and relative humidity or erases the memory

V HISTORY BUTTON
Selects the pressure history of previous hours

W UP (▲) AND DOWN (▼) BUTTONS
Increases or decreases the value of a setting, scans the moonphase status and toggles the alarm status

X ALARM / ❄ BUTTON
Displays the alarm time

Y MODE BUTTON
Changes the display mode of the clock or triggers the clock setting mode

Z RESET BUTTON
Resets the unit by returning all settings to their default values

AA BATTERY COMPARTMENT
Accommodates four UM3 or AA-size batteries

AB TABLE AND CONTROL STAND
Acts as control panel and supports the unit when lying flat

AC LOCK SLIDE BUTTON
Slide to the right to lock the 2 panels

AD UNLOCK BUTTON
Press to release the lock

MAIN FEATURES: REMOTE UNIT MODEL THGR228N

a Two-line LCD
Displays the current temperature and humidity monitored by the remote unit

b LED indicator
Flashes when the remote unit transmits a reading

c °C/°F slide switch
Selects between Centigrade (°C) and Fahrenheit (°F)

d Channel slide switch
Designates the remote unit Channel 1, Channel 2 or Channel 3

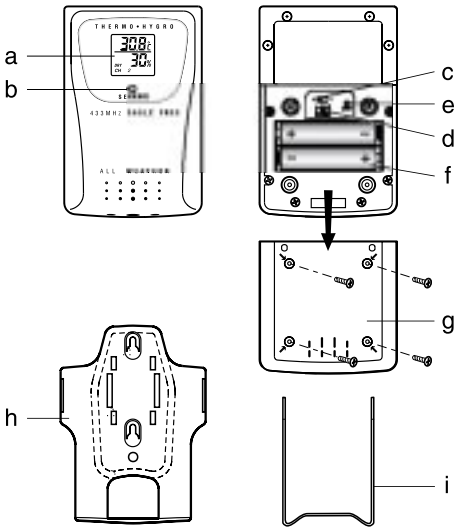
e RESET
Returns all settings to default values

f Battery compartment
Accommodates two AAA-size batteries

g Battery door

h Wall-mount holder
Supports the remote unit in wall-mounting

i Removable table stand
For standing the remote unit on a flat surface



BEFORE YOU BEGIN

For best operation,

1. Insert batteries for remote units before doing so for the main unit.
2. Position the remote unit and main unit within effective transmission range, which, in usual circumstances, is 30 meters.

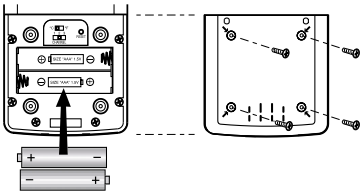
Though the remote unit is weather proof, it should be placed away from direct sunlight, rain or snow.

BATTERY AND CHANNEL INSTALLATION: REMOTE UNIT

The remote thermo-hygro sensor unit uses two (2) UM-4 or "AAA" size alkaline batteries.

Follow these steps to install / replace batteries:

1. Remove the screws on the battery compartment.
2. Select the channel number on the **CHANNEL** slide switch.
3. Select the temperature display unit on the **°C/°F** slide switch.



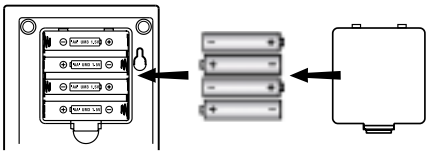
4. Insert the batteries strictly according to the polarities shown.
5. Replace the battery compartment door and secure its screws.

Replace the batteries when the low-battery indicator of the particular channel lights up on the main unit. (Repeat the steps described in section "BEFORE YOU BEGIN")

> ***Note*** *that once a channel is assigned to a remote unit, you can only change it by removing the batteries or resetting the unit.*

BATTERY INSTALLATION: MAIN UNIT

1. Gently press and lift the tab on the battery compartment door.
2. Insert four UM3 or AA-size batteries.



3. Replace the battery compartment door.

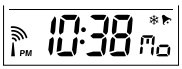
   Replace the batteries when the low battery indicator [ ] on the weather forecast window lights up.

HOW TO USE THE BACKLIGHT

Press the **SNOOZE/LIGHT** button once. The backlight will be turned on for five seconds.

TIME DISPLAY MODES

The current time and date can be displayed in three modes: hour-minute-second, hour-minute-weekday and day-month-year or month-day-year. Press the **MODE** button to change from one mode to the other.



Pressing the **ALARM** button during any of these modes will display the daily alarm time. Another press will go to the Pre-alarm mode. To go back to normal time and date display, press **MODE**.

ABOUT RADIO RECEPTION

BAR938HG is designed to automatically synchronize its calendar clock once it is brought within range of the Frankfurt DCF77 radio signal. It will scan and adjust every full hour.

When BAR938HG is within range, its radio-control mechanism will override all manual settings.

When the unit is receiving a radio signal, the RADIO RECEPTION indication will start to blink. A complete reception generally takes about two to 10 minutes, depending on the strength of the radio signal. If the radio signal is weak, it can take up to 24 hours to get a valid signal reception.

When the reception is complete, the RADIO RECEPTION indication will stop blinking. If the signal is received, a RADIO RECEPTION indication [ ] will be shown. Otherwise, [ ] is displayed.

For better reception, place the clock away from metal objects and electrical appliances to minimize interference.

Should you wish to deactivate the RF controlled function, press **MODE** and **DOWN** button simultaneously.

To reactivate the RF control function, from its deactivated status press **MODE** and **UP** simultaneously.

	- Good
	- No signal
	- Receiving

HOW TO SET THE CLOCK AND CALENDAR MANUALLY

When the current time is displayed, press and hold **MODE** for three seconds. The 12-hr or 24-hr digits will flash. Use the **UP** or **DOWN** button to select either. If 12-hour clock format is selected, the time will be displayed with the AM or PM indicator.

Press **MODE**. The hour digits will flash. Use the **UP** or **DOWN** buttons to enter the hours. Holding down either button will increase or decrease the value rapidly. Press **MODE** to go to the minutes. Set the minutes like you set the hours. Press **MODE** to confirm.

If changes are made during minute-setting, the seconds will clear to zero and stop.

The year digits will flash. Enter the year using the **UP** or **DOWN** button.

Press **MODE**. The "DM" or "MD" indicator will flash. Use the **UP** or **DOWN** button to select "DM" for day-month display or "MD" for month-day display.

Press **MODE** and follow the same procedure to set the month and day.

Press **MODE**. The E, D, F, I or S language indicator will flash. Use the **UP** or **DOWN** button to select E for English, I for Italian, D for German, F for French or S for Spanish.

The display language of the day-of-the-week is selected in the calendar setting procedure. The foreign languages and their meanings are as follows:

Language	Day-of-the-week						
	Monday	Tuesday	Wed.	Thursday	Friday	Saturday	Sunday
English							
German							
French							
Italian							
Spanish							

Press **MODE** to confirm and exit.

HOW TO SET AND ACTIVATE THE DAILY ALARM

When the daily alarm time is displayed, press and hold **ALARM** for three seconds.

Enter the value for the hour digits by the **UP** or **DOWN** button. Press **ALARM** to confirm and go to the minute digits. Enter the value and press **ALARM** to confirm.

The alarm is automatically activated. To deactivate it, press **ALARM** once to display the alarm time. Then use the **UP** or **DOWN** button to toggle its status.

ALARM AND SNOOZE FUNCTION

When the alarm is active, it will go off at the set time. The display will light up for five seconds with the ALARM ON icon flashing.

The crescendo function allows the alarm to start off gently and step up its intensity in three steps. Without interruption, the alarm will go off for 2 minutes.

To stop the alarm, press any button. If the **SNOOZE/LIGHT** button is pressed, the **SNOOZE** function will be triggered. The alarm will stop and the bell icon blinks for about eight minutes before going off again.

PRE-ALARM FUNCTION FOR CHANNEL 1 REMOTE SENSOR

The alarm function also has a pre-alarm feature which can alert the user before the preset alarm time when weather condition changes. This pre-alarm function applies to Channel 1 Remote Sensor only.

To enable this function, first activate the alarm function. Then enter the Pre-Alarm mode by pressing the **ALARM** button twice. The "Pre-Al" icon will be displayed. Press and hold the **ALARM** button for 3 seconds to set the operating time interval for this pre-alarm function. Use the **UP** or **DOWN** button to select from the 4 time-intervals: 15, 30, 45 or 60 minutes. Press the **ALARM** button to confirm and exit. The pre-alarm function will be enabled automatically which is indicated by the appearance of the [❄] symbol.

To disable this function, press the **DOWN** button in the Pre Alarm mode. The [❄] symbol will disappear to indicate that it is disabled.

The pre-alarm will operate during the selected time interval before the daily alarm time. For example, if the daily alarm is set to go off at 7:00 am and the pre-alarm operating time interval is set to 45 minutes, the pre-alarm will start to operate at 6:15 am (45 minutes before 7:00 am).

During the pre-alarm operating period, if the temperature recorded at Channel 1 remote sensor falls to or below 2.0ºC, the pre-alarm will be triggered. The Pre-Alarm icon will flash and the backlight will be turned on for 5 seconds. An alarm sound will also go off for 2 minutes as that of the daily alarm and the snooze function will also be activated if the **SNOOZE/LIGHT** button is pressed.

***Note**: The daily alarm will NOT function until the next day if the pre-alarm has been triggered beforehand. Deactivation of the alarm function will disable the pre-alarm feature automatically.*

HOW TO CHECK INDOOR AND OUTDOOR-REMOTE TEMPERATURES & HUMIDITIES

To display indoor temperatures and humidities, press the **CHANNEL** button until the [⌂] indicator lights up.

To display outdoor-remote temperatures and humidities, press the **CHANNEL** button to scroll through the readings from up to 3 remote sensors.

The temperature can be shown in Centigrade (°C) or Fahrenheit (°F). It is selected on the **°C/°F** slide switch. Slide the switch to °C for Centigrade or °F for Fahrenheit.

If the readings go above or below the specified range, the display will show flashing "HHH" or "LLL".

CHANNEL SCAN FUNCTION

Press and hold **CHANNEL** button for 3 seconds to enter channel scan function. The readings of each channel will be displayed one by one for 4 seconds automatically. Press any key to stop the scan function.

NOTE ON REMOTE TEMPERATURE & HUMIDITY

Once batteries are in place for the remote unit, it will start transmitting samplings at 39-43-second intervals.

If no signals are received when the remote temperature and humidity is selected, blanks will be displayed. Press and hold the **CHANNEL** button to enforce a search. This is useful in synchronizing the transmission and reception of the remote and main units.

If that fails, check if the remote unit is still in place. Make sure the transmission is within range and path is clear of obstacles and interference.

Repeat this procedure whenever you find discrepancies between the reading shown on the main unit and the remote unit.

NOTE ON °C AND °F

The outdoor temperature display on the main unit is dominated by the selection on the **°C/°F** slide switch of the main unit. Whatever the display unit of the remote sensor is, it will only apply to the remote sensor itself and the temperature will be automatically converted to the chosen one of the main unit.

MAXIMUM AND MINIMUM TEMPERATURES

The maximum and minimum recorded temperatures will be automatically stored in the memory. To display them, press **MEMORY** to toggle among the maximum, minimum and current temperatures. The respective MAX or MIN indicator will be displayed.

To clear the memory, hold down **MEMORY** for three seconds. The maximum and minimum temperatures will be erased. If you press MEMORY now, the maximum and minimum temperatures and humidities will have the same values as the current one until different readings are recorded.

TEMPERATURE AND HUMIDITY TREND

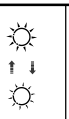
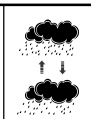
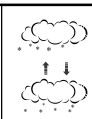
The temperature and humidity trend indicator shows the trend of temperature changes for the last 30 minutes. Three trends, rising, steady and falling, will be shown.

Arrow indicator	TEMP	TEMP	TEMP
Temperature Trend	Rising	Steady	Falling

Arrow indicator	%RH	%RH	%RH
Humidity Trend	Rising	Steady	Falling

WEATHER FORECAST

BAR938HG is capable of detecting atmospheric pressure changes, and from the data collected, can predict the weather for the forthcoming 12 to 24 hours. The effective range covers an area of 30 to 50 km.

				
sunny	partly cloudy	cloudy	rainy	snowy

NOTE:

1. *The accuracy of a general pressure-based weather forecast is about 70 to 75%, and therefore, cannot be held responsible for any inconveniences so caused by an inaccurate one.*
2. *The weather forecast is meant for the next 12 to 24 hours. It may not necessarily reflect the current situation.*
3. *The "Sunny" icon, displayed at night time, implies clear weather.*

COMFORT LEVEL INDICATORS

The comfort level indicators COM, WET or DRY will tell you if the curent environment is comfortable, too wet or too dry.

The comfort indicators will appear on the display of the main unit when the following conditions are satisfied:

Indicator displays on the unit	Temperature Range	Humidity Range	Shows Current Environment
COM	20°C to 25°C (68°F to 77°F)	40%RH-70%RH	Ideal range for both relative humidity and temperature
WET	-5°C -+ 50°C (23°F - 122°F)	OVER-70%RH	Contains excess moisture
DRY	-5°C -+ 50°C (23°F - 122°F)	Below 70%RH	Contains inadequate moisture
No Indicator	Less than 20°C (68°F) or More than 25°C (77°F)	40%RH to 70%RH	No comment

HOW TO CHECK THE BAROMETRIC PRESSURE

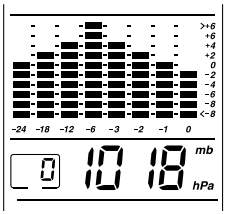
The current and historical barometric pressure is shown on the atmospheric pressure window.

For users staying at a higher altitude such as in the mountain area, sea-level barometric pressure applies. In this case, press and hold **HISTORY** button to enter the altitude compensation setting mode. Use the **UP** or **DOWN** button to select from –100 to 2500 meters (whichever appropriate). Press **HISTORY** button to confirm and exit. If the altitude changes, the "ALT" icon will flash to indicate such change. It will stop flashing when the pressure reading is recorded again.

The atmospheric pressure can be displayed in mb/hPa or inHg. The pressure unit is selected on the atmospheric pressure slide switch inside the battery compartment.

If you want to check the pressure history for a particular hour during the past 24 hours, press the **HISTORY** button. Each press on the button will go back by an hour.

The recorded atmospheric changes for the past 24 hours are displayed in a bar chart above the atmospheric pressure window.

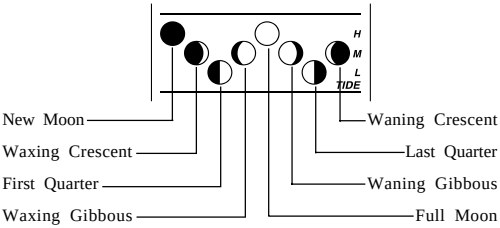


HOW TO USE AND SCAN THE MOON PHASE

BAR938HG is equipped with a moon phase display and scanner with which eight moon phases are displayed on the screen from new moon to waning crescent. The current-day's moon phase will flash on the screen.

If it is a full moon or new moon day, the icon will flash faster.

The eight phases are:



To check the moon phase for a particular day, press the **UP** or **DOWN** button once. The clock will enter moon phase scanning mode.

Use the **UP** or **DOWN** button to locate the date you want to check. The calendar will be day-driven in this mode.

You can go back in time or travel to the future, any day from 1990 to 2089. The corresponding moon phase will appear immediately on the screen.

The unit will return to the last display mode when the **UP** and **DOWN** buttons are left idle for 10 to 15 seconds.

HOW TO WALL MOUNT OR USE THE TABLE STAND

Wall-mount

First, adjust the control panel and display panel so that they are parallel to each other. Then press the side of the display panel slighty towards the side of the control panel. Slide the **LOCK** button to the right to lock the 2 panels together. The unit can be wall-mounted using its recessed screw holes.

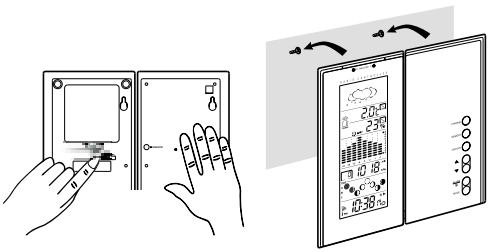
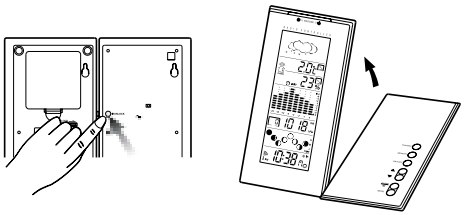


Table-stand

First, unlock the two panels by pressing the unlock button. Lay the control panel on a flat surface. Then adjust the angle of the display panel for best display and support.



HOW TO RESET THE UNIT

The **RESET** button allows you to return all settings to its factory values. The button is required only when the unit is not operating in a favorable way, such as in the rare case of a malfunction.

The **RESET** button is located at the back of the unit below the battery compartment. Press the button with a blunt stylus to reset all values to their default settings.

MAINTENANCE

When handled properly, this unit is engineered to give you years of satisfactory service. Here are a few product care instructions:

1. Do not immerse the unit in water. If the unit comes in contact with water, dry it immediately with a soft lint-free cloth.
2. Do not clean the unit with abrasive or corrosive materials.Abrasive cleaning agents may scratch the plastic parts and corrode the electronic circuit.
3. Do not subject the unit to excessive: force, shock, dust, temperature, or humidity. Such treatment may result in malfunction, a shorter electronic life span, damaged batteries, or distorted parts.
4. Do not tamper with the unit's internal components. Doing so will terminate the unit's warranty and may cause damage. The unit contains no user-serviceable parts.
5. Only use new batteries as specified in this instruction manual. Do not mix new and old batteries as the old batteries may leak.
6. Read this instruction manual thoroughly before operating the unit.

SPECIFICATIONS

- **Temperature Measurement**

Main unit

Indoor Temperature measurement

Proposed operating range	:	-5.0°C to +50.0°C (23.0°F to 122.0°F)
Temperature resolution	:	0.1°C (0.2°F)

Remote Temperature measurement

Proposed operating range	:	-5.0°C to +50.0°C (23.0°F to 122.0°F)
Temperature resolution	:	0.1°C (0.2°F)

Relative Humidity Measurement

Indoor relative humidity measurement range	:	25% RH to 95% RH
Resolution	:	1% RH

Remote unit

Measuring range	:	-20.0°C to +60.0°C (-4.0°F to 140.0°F)
Temperature resolution	:	0.1°C (0.2°F)
RF Transmission Frequency	:	433 MHz
No. of Remote unit	:	up to 3 units
RF Transmission Range	:	Maximum 30 meters
Temperature sensing cycle	:	around 39 - 43 seconds

- **Relative Humidity Measurement**

Remote relative humidity measurement range	:	25%RH to 95%RH
Resolution	:	1% RH

- **Barometric Pressure Measurement**

Pressure measuring range	:	795 to 1050 mb/ hPa (23.48 to 31.01 inHg)
Pressure sampling cycle	:	15 minutes

- **Moon Phase Functions**

Moon Phase Scanner Range	:	From 1990 to 2089

- **Radio Controlled Clock**
  - Maintime set and synchronized by Radio Signal DCF77 for Continental/ Central Europe
  - user selectable 12 or 24h display with hh : mm ss
  - Date Format : Day-Month-Year or Month-Day-Year
  - Day of week selectable in 5 language (E, F, D, I, Sp)
  - 2-minute crescendo alarm
  - Pre-alarm for Channel 1 sensor

- **Power**

Main unit	:	use 4 pcs UM-3 or "AA" 1.5V alkaline battery
Remote sensing unit	:	use 2 pcs UM-4 or "AAA" 1.5V alkaline battery

- **Weight**

Main unit	:	306 gm
Remote sensing unit	:	100 gm

- **Dimension**

Main unit	:	182(L) x 133(W) x 28(T) mm
Remote sensing unit	:	92(L) x 60(W) x 21(T) mm

NOTE ON COMPLIANCE

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ABOUT OREGON SCIENTIFIC

Visit our website (www.oregonscientific.com) to learn more about Oregon Scientific products such as digital cameras; MP3 players; children's electronic learning products and games; projection clocks; health and fitness gear; weather stations; and digital and conference phones. The website also includes contact information for our Customer Care department in case you need to reach us, as well as frequently asked questions and customer downloads.

We hope you will find all the information you need on our website, however if you're in the US and would like to contact the Oregon Scientific Customer Care department directly, please visit:

www2.oregonscientific.com/service/support OR Call 1-800-853-8883.

For international inquiries, please visit:

www2.oregonscientific.com/about/international/default.asp

RTTE-DECLARATION OF CONFORMITY

Hereby, Oregon Scientific, declares that this [CABLE FREE WEATHER STATION BAR938HG is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

A copy of the signed and dated Declaration of Conformity is available on request via our Oregon Scientific Customer Service.

CE

COUNTRIES RTTE APPROVAL COMPLIED

All EC countries, Switzerland (CH)
and Norway (N)

CAUTION

— The content of this manual is subject to change without further notice.

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